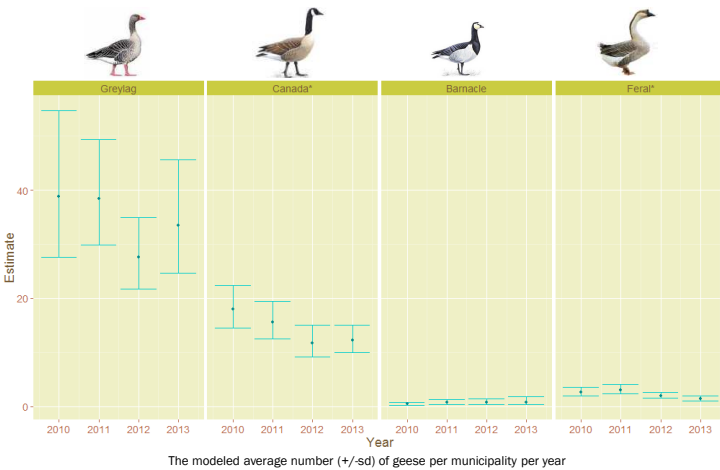


Integrated Management of Invasive Geese Populations in an International Context

A Case Study in Belgium & The Netherlands

Impact scoring for established non-native birds in Europe has shown Canada goose (*Branta canadensis*) to have the highest environmental, economic (agricultural damage) and social impact. Among the ecological effects are overgrazing, fouling, trampling of vegetation such as reed beds and meadows, bioturbation of oligotrophic fens and pathogen transmission. Management of invasive geese in Belgium and the Netherlands was, until recently, mainly done by egg pricking and hunting. In the current project, coordination of these actions was enhanced and additional intensive moult captures (n=131) were performed on a larger scale. This resulted in a significant decrease of Canada and feral goose (*Anser anser* f. *domestica*) numbers. No differences in the numbers of greylag (*Anser anser*) and barnacle goose (*Branta leucopsis*) could be observed.



Methods

To evaluate the effectiveness of the combined efforts, mid-summer simultaneous counts were performed in a fixed set of counting areas. Based on these counts and management effort data, gee-glm models were constructed to estimate goose number trends and evaluate the importance of the different management actions. We also included catch effort (# geese caught) as a fixed effect.


Results


Moult captures were very successful for Canada geese, with a total of 7829 caught between 2010 and 2013. Greylag geese, although comparable in density, tended to move away from catching sites during the moulting season. In relation to density, catch success for feral goose was high. Barnacle geese moult later and were therefore only caught in very low numbers. There was a significant effect of catch effort on modeled estimates (Wald: 19.77, $p = 8.7e-06^{***}$).

Further information




Full report






Project summary




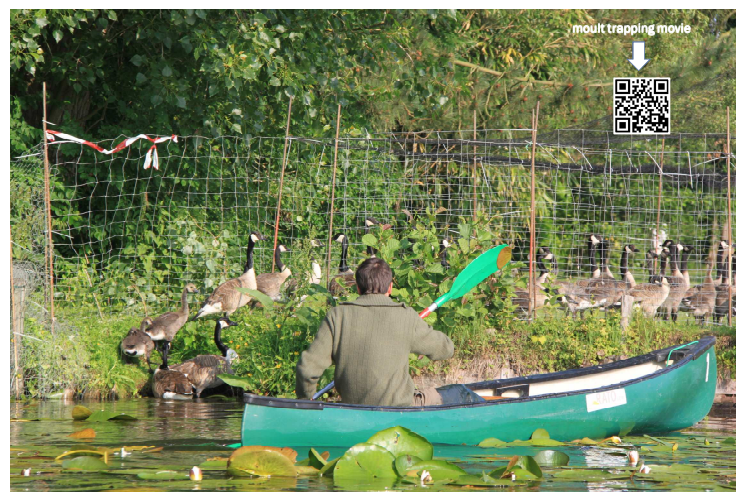
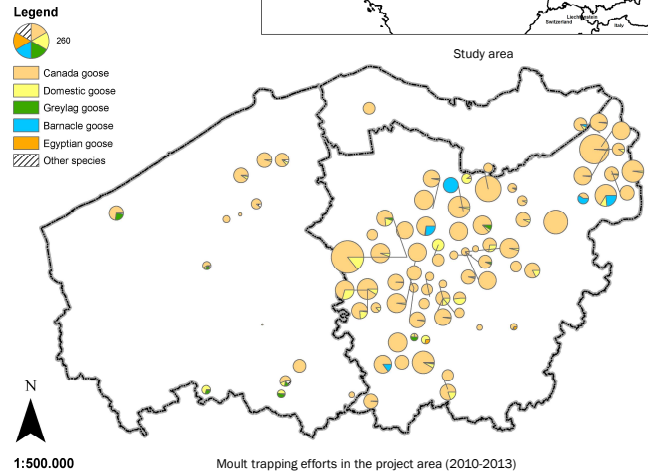


Best practice information



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Conclusion

For the species caught in high numbers, the impact was significant over four years, and related to catch effort. For barnacle goose a later catching season is needed. Moulting greylag geese show the importance of a coordinated range-wide approach. Future work will be to upscale management and implement an adaptive management cycle backed by population models. This approach requires continued investment in prevention, awareness raising & generating public support.

Acknowledgements

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